TABLE OF CONTENTS

NO. 1, JANUARY 1960

Announcements 1

Localization and patterns of discharge of respiratory neurones in brain-stem of cat. G. C. SALMOIRAGHI AND B. DELISLE BURNS 2

Notes on mechanism of rhythmic respiration. G. C. SALMOIRAGHI AND B. DELISLE BURNS 14

Repetitive firing of respiratory neurones during their burst activity. B. DELISLE BURNS AND G. C. SALMOIRAGHI 27

Midbrain evoked responses relating to peripheral unmyelinated or 'C' fibers in cat. WILLIAM F. COLLINS AND CLARK T. RANDT 47

Postural reflexes in forelimb of toad, *Bufo marinus*. ROGER M. CHAMBERS AND JONATHAN P. SIMCOCK 54

Electroretinograms and spectral sensitivities of some diurnal lizards. A. FORBES, S. FOX, N. MILBURN, AND H. W. DEANE 62

Cerebral response in somatic area I of ipsilateral somatic II origin. HIROSHI NAKAHAMA 74

Auditory response fields in association and motor cortex of cat. RICHARD F. THOMPSON AND RONALD M. SINDBERG 87

Necrology 106

Reviews 106

Manuscripts accepted for publication 110

NO. 2, MARCH 1960

Correlation of electrical activity of prepyriform cortex and behavior in cat. WALTER J. FREEMAN 111

Properties of thin generators pertaining to electrophysiological potentials in volume conductors. ALEXANDER MAURO 132

Distribution of recurrent facilitation and inhibition in cat spinal cord. VICTOR J. WILSON, WILLIAM H. TALBOT, AND FRIEDRICH P. J. DIECKE 144

Precentral facilitation and inhibition of spinal motoneurons. JAMES B. PRESTON AND DAVID G. WHITLOCK 154

Neuromuscular facilitation and antidromic discharges in motor nerves: their relation to activity in motor nerve terminals. GERHARD WERNER 171

Extracallosal delayed responses to cortical stimulation in chloralosed cat. L. T. RUTLEDGE AND THELMA T. KENNEDY 188

Cord cells responding to touch, damage, and temperature of skin. PATRICK D. WALL 197

Influence of orbital cortex on blood pressure responses in cat. P. P. NEWMAN AND J. H. WOLSTENCROFT 211

Notices 218

Reviews 220

Manuscripts accepted for publication 224

NO. 3, MAY 1960

Activation of latent foci of spreading depression in rats. J. Bureš and O. Burešová 225

Effect of gamma-amino butyric acid (GABA) on K^{42} outflux from rabbit cortex. F. J. Brinley, Jr., E. R. Kandel, and Wade H. Marshall 237

Potassium outflux from rabbit cortex during spreading depression. F. J. Brinley, Jr., E. R. Kandel, and Wade H. Marshall 246

Adaptation in regulation of movement and posture. A study of stretch responses in spastic animals. Lloyd D. Partridge and Gilbert H. Glaser 257

Vestibular and propriospinal interactions and protracted spinal inhibition by brain stem activation. Bo E. Gernandt and Sid Gilman 269

Spinal tracts mediating subthalamic hyperkinesia. Physiological effects of selective partial cordotomies upon dyskinesia in rhesus monkey. Malcolm B. Carpenter, James W. Correll, and Alanson Hinman 288

Phase of suppression following each retinal b-wave in flicker. Geoffrey Arden, Ragnar Granit, and Francesco Ponte 305

Autonomic function of some small fibers in corticospinal tract of cat. Kenan Umar and G. H. Wang 315

Function of auditory cortex of cat in frequency discrimination. Richard F. Thompson 321

Necrology 335

Announcements 337

Reviews 339

Manuscripts accepted for publication 344

NO. 4, JULY 1960

John Farquhar Fulton, 1899–1960 346

Polarographic studies of cat's auditory cortex. Edward A. Rice 350

Development of evoked responses in visual and auditory cortices of kittens. Robert J. Ellingson and Robert C. Wilcott 363

Thalamic relay nucleus for taste in albino rat. Murray F. Ables and Robert M. Benjamin 376

Repetitive electrical stimulation of prepyriform cortex in cat. Walter J. Freeman 383

Further analysis of relationship between end-plate potential and end-plate current. Akira Takeuchi and Noriko Takeuchi 397

Rabbit EEG "theta" rhythm: its anatomical source and relation to activity in single neurons. J. D. Green, D. S. Maxwell, W. J. Schindler, and C. Stumpf 403

Effect of hypothermia on excitability of spinal neurons. Kiyomi Koizumi, J. Ushiyama, and Chandler McC. Brooks 421

Apical dendrites and propagation of spreading depression in cerebral cortex. S. Ochs and K. Hunt 432

Effects of anterior cingulate stimulation. W. Lewin and C. W. M. Whitty 445

Spontaneous variations of skin potentials in footpads of normal, striatal and spinal cats. Roongtam Ladpli and G. H. Wang 448

Generation of antidromic activity in motor nerves. Gerhard Werner 453

Announcements 462

Necrology—correction 462

Reviews 463

Manuscripts accepted for publication 470

NO. 5, SEPTEMBER 1960

Frontal lesions and behavioral deficits in monkey. RAYMOND C. MILES AND ALLEN J. BLOMQUIST ... 471

Fluid formed by choroid plexus. A technique for its collection and a comparison of its electrolyte composition with serum and cisternal fluids. JACQUES DE ROUGEMONT, ADELBERT AMES III, FRANCES B. NESBETT, AND HELMUT F. HOFMANN ... 485

Direct cortical and recruiting responses in postnatal rabbit. ROMUALDO JOSÉ DO CARMO ... 496

Membrane changes in crayfish stretch receptor neuron during synaptic inhibition and under action of gamma-aminobutyric acid. S. HAGIWARA, K. KUSANO, AND S. SAITO ... 505

Interactions between vestibular, pyramidal, and cortically evoked extrapyramidal activities. BO E. GERNANDT AND SID GILMAN ... 516

Experimental and histological study of midbrain dyskinesias. LOUIS J. POIRIER ... 534

Effects of epileptogenic lesions in frontal cortex on learning and retention in monkeys. J. S. STAMM AND K. H. PRIBRAM ... 552

Afferent impulses in cutaneous sensory nerves in human subjects. HERBERT HENSEL AND KURT K. A. BOMAN ... 564

Announcements ... 579

Reviews ... 580

Manuscripts accepted for publication ... 582

NO. 6, NOVEMBER 1960

Facilitation and addition of electrically evoked eye movement in cats. JANE E. HYDE 583

Cortical intracellular potentials in response to stimulation of lateral geniculate body. CHOH-LUH LI, ARMANDO ORTIZ-GALVIN, SHELLEY N. CHOU, AND SAXTON Y. HOWARD ... 592

Unspecific systems of inhibition and facilitation of potentials evoked by intermittent light. MIRCEA STERIADE AND MIHAI DEMETRESCU ... 602

Postsynaptic electrogenesis in septate giant axons. II. Comparison of medial and lateral giant axons of crayfish. C. Y. KAO ... 618

Patterns of competitive interaction of electrically evoked eye movements in cats. JANE E. HYDE ... 636

Intracellular recording of neuromuscular junction action potential in single isolated nerve-muscle fiber. MICHIHIKO OGATA AND ERNEST B. WRIGHT ... 646

Action of tetanus toxin on conditioning of spinal motoneurons. VICTOR J. WILSON, FRIEDRICH P. J. DIECKE, AND WILLIAM H. TALBOT ... 659

D.C. Potential changes from auditory cortex of cat. ROBERT J. GUMNIT ... 667

Measurement of function in an *in vitro* preparation of mammalian central nervous tissue. ADELBERT AMES III AND BENETT S. GURIAN ... 676

Announcements ... 692

Review ... 693

Manuscripts accepted for publication ... 694

Index ... 695